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# Alaska Department of Fish and Game

## NEWS

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### **Moose Parasites Common**

Hunters concerned about finding parasites in their moose this fall can breathe easier – it's normal.

More hunters seem to have noticed tapeworm cysts in their moose this year than in past years, but Alaska Department of Fish and Game staff do not credit this to an increase in the occurrence of parasites. More likely, the antlerless moose hunt in Unit 20A has led hunters to take more adult moose than in past years, and adult moose have had more time to be exposed to tapeworm eggs and develop tapeworm cysts.

"It is common for moose to have tapeworm cysts. In fact, it is very rare to find adult moose without any cysts," said wildlife veterinarian Dr. Kimberlee Beckmen.

Three different tapeworms are typically found in moose and caribou in the Interior. People cannot become infected with any of these by eating moose meat. However, humans can contract one variety from a pet dog if it eats raw game meat.

State regulations prohibit feeding game meat to dogs other than skin or viscera. It is very important not to feed the raw moose liver, lung, or muscle to dogs, even the small amount left on the bones. However, if your dog has eaten raw game meat or organs, Veterinarian's have effective and non-painful medication to rid dogs of any kind of tapeworm.

*Echinococcus granulosus*, or cystic hydatid disease, cysts are found in the lungs of moose, caribou or deer. They can be quite large, up to a couple inches in diameter. They feel quite hard but if you cut into one, the fluid under pressure squirts out and it deflates. Inside are tiny white sand-like grains, each one a tapeworm head. Each head can develop into a little tapeworm in a dog, fox,

coyote or wolf. If a person incidentally ingests an egg because their hands became contaminated from cleaning up dog stool or even from eggs stuck to the dog's coat, a cyst could develop in the person's liver after many years.

*Echinococcus granulosus* is treatable with surgery in humans. It is rare but can cause serious illness.

(Another form of *Echinococcus (multilocularis)* can cause extremely serious, untreatable illness in humans. This species is not present in moose but dogs or foxes that eat infected voles can pass it to humans)

Two less serious tapeworms of the genus *Taenia* are very common in moose, but not infective to people. The tiny white 'blebs' or cysts, often seen in the leg muscles of moose are immature tapeworms of the species *Taenia krabbei*. If a member of the dog (or canid) family, usually a wolf, consumes raw moose meat with cysts in it, the head of the tapeworm emerges in the dog's digestive tract and attaches to the wall of the canid's intestine. After about a month, the tapeworm is fully developed enough to start producing egg packets, which contain hundreds of thousands of eggs and are shed in the canid's stool. As the stool dries on the ground and is broken up by rain or snow, the eggs get spread on the ground and contaminate plants. The eggs are protected by a thick shell that resists drying and freezing for many, many years. Eggs are ingested by moose that browse on the plants. The eggs hatch in the moose and larval tapeworms migrate to the muscle to encyst and start the cycle again. The cysts generally have no effect on the moose.

*Taenia hydatigena* is another tapeworm found in the liver of the moose. It looks like a small bubble with a white center and is sometimes called a "bladder worm." When the moose dies or is killed by a predator that consumes the liver, the predator or scavenger develops the adult tapeworm as described above. In addition to canids, lynx also harbor the adult tapeworm of this type.

More information about wildlife diseases is available on the Department's website at [http://www.wildlife.alaska.gov/aawildlife/disease/disease\\_hm.cfm](http://www.wildlife.alaska.gov/aawildlife/disease/disease_hm.cfm)

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